

ABSTRACT OF THE DISCLOSURE

The present invention provides a method for producing α -hydroxy acid ammonium salt that uses a specific microbial strain capable of accumulating α -hydroxy acid ammonium salt at a high concentration while also maintaining an industrially satisfactory production rate for a long period of time. More specifically, the present invention uses a microbial catalyst originating in a microbial strain which, during conversion of α -hydroxynitrile to α -hydroxy acid ammonium salt, is capable of maintaining the average production rate of α -hydroxy acid ammonium salt at at least 100 $\mu\text{mol}/\text{min}$ per g of dry microbial cell weight for 14 days or more without adding fresh microbial catalyst, and is capable of accumulating the α -hydroxy acid ammonium salt at 20 to 60% by weight. An example of this microbial strain is *Arthrobacter* sp. strain NSSC204.